Missing dimensions of well-being and respect for individual preferences: How affected is equivalent income?

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How?

1. Taking into account a wide range of dimensions that individuals consider relevant for a good life

2. Respecting individual preferences

With the purpose of policy orientation
Measuring well-being capturing non-income dimensions

How?

1. Capability approach
2. Subjective well-being
3. Equivalent income
Measuring well-being capturing non-income dimensions

1. Capability approach
2. Subjective well-being
3. Equivalent income

How?

1. Capability approach
2. Subjective well-being
3. Equivalent income
Equivalent income in the literature:

Equivalent income in the literature:

Equivalent income in the literature:

Equivalent income is defined as:

The hypothetical level of income that combined with the best possible value of the other non-income dimensions, would place individuals in a situation that they find equally good as their actual situation.
This paper:

We use rich data from Ecuador, developed following the missing dimensions analysis from OPHI

Implement an equivalent income approach to measure well-being

Traditional measures of equivalent income use basic life dimensions

- Income
- Housing quality
- Health/Illness
- Unemployment

We extend this to other possible missing dimensions

- What happens with the ranking provided by the two measures?
- How comparable are they?
- How much are we missing when these dimensions are not included?
The remaining of the talk:

1. Motivation

2. Literature background

3. Empirical approach

4. Results

5. Caveats and concluding remarks
3. Empirical approach
Empirical approach:

We follow the literature that derives preference information based on life satisfaction regressions:

\[ S_i = \alpha + \pi \ln(y_i) + \beta W_i + \gamma W_i Z_i + \delta Z_i + \xi_i, \]

Where:
- \( S_i \): Live satisfaction [1,4] Very dissatisfied to very satisfied
- \( y_i \): Income
- \( W_i \): All other non-income well-being dimensions
- \( Z_i \): Subpopulation groups across which preferences might differ systematically
- \( \xi_i \): Error term
Empirical approach:

We know that we observe the equivalent income ($y_i^*$), in presence of the reference values $\bar{W}$, then:

$$S_i = \alpha + \pi \ln(y_i) + (\beta + \gamma'Z_i)W_i + \delta Z_i + \xi_i$$

$$y_i^* = y_i \exp \left[ \left( \frac{\beta + \gamma'Z_i}{\pi} \right) (W_i - \bar{W}_i) \right]$$
The Ecuadorean survey:

Is a probabilistic survey, made of 23,535 individuals living in 6,342 households, representative at the national level and geographical sample domain.

Overall, how satisfied are you with your life?

N=5,201
Household heads (18-59 years old) with information on life satisfaction

- Very disatisfied: 2.2%
- Disatisfied: 19.9%
- Satisfied: 53.3%
- Very Satisfied: 24.6%
Life Dimensions:

Traditionally used in this literature:

- Income
  - Labour income on primary and secondary activities
  - Governmental transfers
  - Income from capital investments
- Housing quality
  - 22 material conditions of the household, including materials of the dwelling
- Illness
  - Severe self-reported illness during the last month
  - Moderate self-reported illness resulting in absence from work, during the last month
- Unemployment
  - Without a job the week before the interview and available to work
Life Dimensions:

Social isolation
- Did not meet socially with friends, relatives or colleagues during the last 2 weeks
- No network of support
- Absence of relatedness

Gender-based violence
- Witnessed gender violence at the community or household level

Unfair treatment
- Does not receive respectful treatment
- Does not receive fair treatment
- Suffered discrimination during the last 3 months

Political participation
- Active member of political groups
- Voted during the last elections

Empowerment
- Takes decision on whether or not you work by his/herself
4. Results
<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
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</thead>
<tbody>
<tr>
<td>Disposable income (log)</td>
<td>0.0388* (0.0212)</td>
<td>0.0467** (0.0214)</td>
</tr>
<tr>
<td>Housing quality</td>
<td>1.246*** (0.141)</td>
<td>1.173*** (0.148)</td>
</tr>
<tr>
<td>Health</td>
<td>-0.0305 (0.116)</td>
<td>-0.00619 (0.117)</td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.550** (0.241)</td>
<td>-0.490** (0.243)</td>
</tr>
<tr>
<td>Social isolation</td>
<td>-</td>
<td>-0.115*** (0.0284)</td>
</tr>
<tr>
<td>Gender violence</td>
<td>-</td>
<td>-0.113** (0.0453)</td>
</tr>
<tr>
<td>Unfair treatment</td>
<td>-</td>
<td>-0.295*** (0.0500)</td>
</tr>
<tr>
<td>Political participation</td>
<td>-</td>
<td>0.0748 (0.0695)</td>
</tr>
<tr>
<td>Empowerment</td>
<td>-</td>
<td>0.0829 (0.0562)</td>
</tr>
<tr>
<td>Housing x female</td>
<td>-0.414* (0.218)</td>
<td>-0.469** (0.225)</td>
</tr>
<tr>
<td>Health x female</td>
<td>-0.228* (0.133)</td>
<td>-0.243* (0.135)</td>
</tr>
<tr>
<td>Health x higher educ.</td>
<td>0.425* (0.227)</td>
<td>0.420* (0.231)</td>
</tr>
<tr>
<td>Unempl. x ethnicity</td>
<td>0.994*** (0.372)</td>
<td>0.997*** (0.375)</td>
</tr>
<tr>
<td>Isolation x ethnicity</td>
<td>-</td>
<td>-0.105** (0.0485)</td>
</tr>
<tr>
<td>Unfair treat. x age over 50</td>
<td>-</td>
<td>0.163** (0.0707)</td>
</tr>
<tr>
<td>Pol. Partic. x ethnicity</td>
<td>-</td>
<td>-0.273** (0.126)</td>
</tr>
<tr>
<td>N. observations</td>
<td>5,508</td>
<td>5,508</td>
</tr>
<tr>
<td>R2</td>
<td>0.0704</td>
<td>0.0818</td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Gender, age, education, marital status, ethnicity, rural area, non-reciprocity, distrust, lack of autonomy and lack of life purpose, as additive controls.
Percentage of overlap between individuals identified as the most deprived in the basic equivalent income measure against different extended versions:

- Eq. income (all): 39.0%
- Eq. income (social isolation): 53.4%
- Eq. income (gender violence): 73.3%
- Eq. income (unfair treatment): 54.2%
- Eq. income (political participation): 92.4%
- Eq. income (empowerment): 87.4%
Re-ranking: (Basic vs extended eq. income)

Ranks are statistically different in 44% of cases (red dots) based on bootstrapped confidence intervals for welfare rankings.
5. Caveats and concluding remarks
Limitations:

- Given the cross-sectional nature of our data we are unable to account for individual heterogeneity that could be captured through the use of a panel data.

  However, we control for a set of variables related to personality traits such as non-reciprocity, distrust, lack of autonomy and lack of life purpose.
Conclusions and policy implications:

- Unfair treatment, gender violence, and social isolation are significant determinants of life satisfaction and therefore important well-being dimensions when measuring equivalent income.

- Equivalent income based on a limited set of variables could be portraying a biased picture of the overall society, because of the omission of dimensions of well-being that are important for individuals.
  - Only 39% overlap of individuals considered the most deprived across measures.
  - The rank between both measures is statistically different in 44% of the cases.

- More and better information that allow to include these dimensions in the calculation of equivalent income measures is required.
Thank you!